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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,200	10/29/2001	Teresa Lechner-Fish	1787-10100	9865

23505 7590 12/03/2002

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EXAMINER

CYGAN, MICHAEL T

ART UNIT PAPER NUMBER

2856

DATE MAILED: 12/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/062,200

Applicant(s)

LECHNER-FISH, TERESA

Examiner

Michael Cygan

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other:

DETAILED ACTION

Drawings

1. Figures 1-9 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated, as indicated by their description in the "Background of the Invention" section. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 400. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 1124. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because in Figure 10, numeral 1010 should be 1000 at the sample valve. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
5. The drawings are objected to because in Figure 14, the TCD should be labeled 1420. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
6. The drawings are objected to because reference is made at page 19 to a Figure 15 having reference numerals in the 1500 range which does not appear in the application. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 6, 7, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Sides (US 4,805,441). Sides discloses the claimed invention, a gas chromatograph comprising a separation column [17], upstream valve switch [11], further upstream carrier [12] and sample (Figure 1) sources, column heater [24], and preconcentrator heater [15]; see column 3, lines 4-43. The preconcentrator heater is heated to a desired temperature of 200 C; the column heater is heated to about 120 C; see column 4, lines 4-29. The carrier gas stream travels through the separation column where it is cooled by a fan [26]; column 3, lines 31-33. The preconcentrator heater is controlled by a programmable computer to a series of predetermined temperatures (i.e., ambient and 200 C); see column 3, lines 44-50, Figure 5, and column 4, lines 4-9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sides (US 4,805,441) in view of Sacks (US 5,205,845). Sides teaches the claimed invention except for the use of a back pressure restrictor formed of capillary tubing upstream of column and upstream of

valve switch. Sacks teaches a valve [12] for a gas chromatograph having two capillary tubes which act to restrict back pressure. One tube [40] is placed upstream of the column; see Figures 1-2 and column 5, lines 1-11. The second tube [18] is placed upstream of the valve switch; see Figures 1-2 and column 4, lines 13-15. It would have been obvious to one having ordinary skill in the art to use a valve switch having capillary inlets acting as back pressure restrictors as taught by Sacks in the invention of Sides to comprise the injection valve, since Sacks teaches that such a valve switch would provide "low maintenance, repeated injections" and be "ideal for high speed gas chromatography"; see column 5, lines 45-57.

9. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sides (US 4,805,441) in view of Staples (US 5,970,803). Sides teaches the claimed invention except for a housing surrounding second heater and cooling means. Staples teaches a gas chromatograph having a preconcentrator in which both are surrounded by a housing; see Figure 2; column 3, lines 34-49; column 4, lines 10-16. It would have been obvious to one having ordinary skill in the art to use a housing to enclose a GC-preconcentrator system as taught by Staples in the invention of Sides to enclose the system, since this will protect the system components from adverse environmental effects.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Backpressure restrictors placed prior to a GC injection valve are disclosed by Spracklen (US 3,041,869). Carrier gas heating/cooling means are disclosed for preconcentrator GC use by Khayat (US 4,096,734). Heated carrier injection valve use is disclosed by Mowry (US 5,922,106), Fore (US 3,779,066), Hu (US 4,159,894), and Watanabe (US 4,872,334).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cygan whose telephone number is 703-305-0846. The examiner can normally be reached on 8:30-6 M-Th, alternate Fridays.

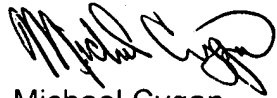
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 703-305-4705. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.

A handwritten signature in black ink, appearing to read "Michael Cygan", with a stylized flourish at the end.

Michael Cygan
December 2, 2002